

REMARKS

By this amendment, claims 1-25 are pending, in which no claims are canceled, withdrawn from consideration, currently amended, or newly presented. No new matter is introduced.

The Office Action mailed June 27, 2007 rejected claims 1-22, and 24 as obvious under 35 U.S.C. § 103 based on *Caldwell, III et al.* (US 6,597,892) in view of *Sasaki et al.* (US 2003/0014603) and *Bodin et al.* (US 2004/0249826) and claims 23 and 25 as obvious under 35 U.S.C. § 103 based on *Caldwell, III et al.* (US 6,597,892) in view of *Sasaki et al.* (US 2003/0014603) and *Bodin et al.* (US 2004/0249826) and further in view of *Ali et al.* (US 2203/019769). Additionally, the Office Action objected to the disclosure for not having cross-references to related applications in the proper order or format.

Responsive to the Examiner's objection regarding a "Cross-Reference to Related Applications" section to be added to the specification, while Applicants appreciate the Examiner's suggestion, Applicants respectfully decline to make the requested amendment to the specification. MPEP §608.01(a) states that the Examiner's requested "order of arrangement of specification elements is **preferable** in framing the nonprovisional specification" (emphasis added). Since a preference is not a requirement (i.e., not mandatory), Applicants' specification is in conformance with the patent rules. The Examiner is respectfully requested to withdraw the objection to the specification in this regard. It is noted, however, that Applicants have updated the status of the referenced applications, as is presently known, in paragraph [106] of the specification.

Applicants respectfully traverse the rejection of the claims under 35 U.S.C. § 103. The applied references do not teach all of the claimed elements; and, even if, *arguendo*, they did, there is no proper basis for combining the references.

Taking independent claim 1 as exemplary, the claim requires the storage of a first and second information element in the same “device log.” Claim 1 also requires the determination of whether the first and second information elements include a first and second priority level indication, respectively. If the respective priority levels are met, then the first information element is stored in a “first data structure” and the second information element is stored in a “second data structure.” Then, a first and a second message are transmitted sequentially based, respectively, on the first information element and the second information element, where the ordering of transmission is based on the first and second level priority indications.

The Examiner points to col. 3, lines 54-60, of *Caldwell, III et al.*, and paragraph [0263] of *Bodin et al.*, for a teaching of both the storage of the first and the second information elements in a device log. However, the cited portion of *Caldwell, III et al.* refers only to at least one primary Telemetry-Initiated Command Assistant Server (TICA Server) wherein the TICA database is a user-created system configuration file containing information that defines the default operational parameters for a TICA response. “Each required response to a particular undesired state change, referred to as an ‘event’, is assembled as an individual TICA Event Parameter Set, referred to as a ‘TICA record’, containing the TICA parameter values.” The Examiner does not explain what, in this cited portion of *Caldwell, III et al.*, is considered to be the first and second information elements. If each “undesired state change,” or “event,” is considered to be the claimed first and second information elements, this portion of *Caldwell, III et al.* mentions nothing about storing these “events” in a “device log,” as claimed. To the extent the Examiner relies on paragraph [0263] of *Bodin et al.* for such a teaching, the cited portion of *Bodin et al.* recites:

...creating a user reaction log includes recording (946) a description of the change (944) in a value of an attribute of a device (316). Recording (946) a description of the change (944) in the attribute of the device (316) can

be carried out, for example, by storing the description of the change in value of the device attribute in computer memory. In many examples of the method of FIG. 12, a user reaction logs contain member methods like addLog() (945) for storing or recording reaction log entries. Recording description of a change in the value of a device attribute can be carried out by a call to a method in the reaction log...

Thus, *Bodin et al.* creates a user reaction log to record a description of the change in value of an attribute of a device. A user reaction log would appear to have no relevance to the ground-control system for a fleet of satellites, as described in *Caldwell, III et al.* Therefore, since *Bodin et al.* is nonanalogous art to *Caldwell, III et al.*, the skilled artisan would not have looked to *Bodin et al.* for guidance on how to process the “events” of *Caldwell, III et al.*

Moreover, the Examiner relies on decision block 160 (see Fig. 1B), and col. 7, lines 27-30, of *Caldwell, III et al.* for a teaching of **both** the claimed “determining whether the first information element includes a first priority level indication” and “determining whether the second information element includes a second priority level indication.” Block 160 of the reference seeks an answer to the inquiry, “MONITOR site commanding Event Satellite @ higher priority?” The cited portion of col. 7, lines 27-30, recite: “If the TICA is enabled, as determined in decision block 156, then a determination is made as to whether the Monitor site is commanding an event on the satellite at a higher priority, in decision block 160.” This does not constitute a teaching of determining whether a first and second information element each includes a priority level indication, as claimed. Rather, *Caldwell, III et al.* employs a Control site and a Monitor site as ground-control sites. These sites monitor and verify the validity of satellite telemetry. When an undesired “event” occurs, computers at both the Control and Monitor sites recognize the event and begin a response. If the Control site cannot interrupt its own activities for some reason, it directs the Monitor site computer to verify that no critical satellite on-board commanding is scheduled to occur, and then discontinues interruptible

activities to transmit required commands. Thus, if critical commanding is scheduled, this takes priority over an interruption due to a detected “event.” See the abstract of *Caldwell, III et al.*, for example. Accordingly, if there are two separate “events,” and the Examiner appears to be arguing that such two events would constitute “first” and “second” information elements, as claimed, there is really nothing to compare since these “events” will always have lower priority than a critical command to the satellite. Also, neither of these “events” includes a “priority level indication,” as claimed, because the priority is always lower than any critical command to the satellite and so there is no need to have these “events” in *Caldwell, III et al.* include first and second “priority level indications.” In any event, no such “priority level indications” are disclosed by *Caldwell, III et al.*

Further, because there is no “priority level indication” in the “events” of *Caldwell, III et al.*, there can be no storage of the events in first and second data structures “when it is determined that the first (second) information element includes the first (second) priority level indication.” The Examiner recognizes this deficiency in *Caldwell, III et al.* and relies on paragraph [0020] of *Sasaki et al.* The cited portion of *Sasaki et al.* relates to storing data items in a cache memory section by dividing the items into groups of data each having a different access pattern with the data items being prioritized within each group by using an individual caching algorithm. When purging of a data item is necessary, the data item with the lowest priority is purged. While *Sasaki et al.* teaches the storage of first and second information elements (data items) based on priority of those information elements, there would appear to be no basis for applying such a teaching to the “events” of *Caldwell, III et al.* There is no reason to determine priority levels of the “events” in *Caldwell, III et al.* vis à vis each other, and then store these events in accordance with those priority levels because any event in *Caldwell, III et al.* will

have lower priority than a critical command to the satellite and that is the priority of concern to *Caldwell, III et al.*

Still further, the present claims, as exemplified by independent claim 1, recite, “transmitting a first message based on the first information element; and after transmitting the first message, transmitting a second message based on the second information element, **wherein an ordering of transmission is based on the first and second level priority indications.**”

Since there are no first and second “level priority indications” included in the first and second “events” of *Caldwell, III et al.*, for the reasons above, there can be no ordering of transmission, as claimed. Further, a first message associated with a first “event” in *Caldwell, III et al.* will be transmitted to the satellite only after all critical commands to the satellite have been transmitted, so there is a priority of the “event” *vis á vis* the critical commands, but there is no priority of “events” between the “events,” except, perhaps, as to which was received first in time. But a possible priority based on time does not suggest a “priority level indication” included in each of the first and second information elements, as claimed.

Even assuming, *arguendo*, that each of the elements of the claims are taught somewhere by one or more of the applied references, the Examiner has not established sufficient motivation for making the proposed combination of references.

Again, taking independent claim 1 as exemplary, at pages 4-5 of the Office Action of June 27, 2007, the Examiner merely cites portions of the various references asserted to teach various portions of the claim but no rationale for making the combination of these references is set forth. At pages 14-16 of the Office Action of June 27, 2007, the Examiner sets forth the rationale for making the combination. In particular, the Examiner explains that *Caldwell, III et al.* fails to disclose “that elements are stored in memory based on their priority level, that the data structures may be managed in queues, whether or not to cache data and store the data, and if

storage is available within a data structure” (Office Action, page 15). The Examiner goes on to explain that *Sasaki et al.* teaches these things at paragraphs [0020], [0112], [0034], and [0016], respectively, but gives no reason, at this point, as to how or why the artisan would have combined the teachings of these two references.

The Examiner notes that *Sasaki et al.* fails to disclose storing elements in a device log, that data structures are stored in dynamic memory in the telemetry device, and that the device log is stored in flash memory, but the Examiner turns to *Bodin et al.* to supply these deficiencies at paragraphs [006], [0263], and [0049], respectively, again offering no reason as to why or how the references would be combined.

The Examiner notes that the three references are from analogous arts (being from “the same field of endeavor of storing and managing information within a device”) (see paragraph 13 at page 15 of the Office Action of June 27, 2007) and concludes that it would have been obvious

...to modify the system for recognizing telemetry state changes and transmitting commands of Caldwell III et al. to include the priority storing system of Sasaki et al., and the event log of Bodin et al. because it is imperative to resolve problems for any set of telemetry states that should be automatically monitored for a device (Caldwell III et al., column 2, lines 6-10), with the information stored by priority efficiently (Sasaki et al., [0018], with a device log tracking the events occurring (Bodin et al., [0004])).

15. The motivation for doing so would have been to deploy a flexible device that allows the telemetry states of many devices to be monitored concurrently (Caldwell III et al., column 2, lines 6-10), storing and accessing information in a prioritized, logical manner (Sasaki et al., [0018]), with a device log that tracks the state changes through events (Bodin et al., [0004])). Therefore, it would have been obvious to combine Bodin et al., with Sasaki et al., and Caldwell III et al. to obtain the invention as specified in the instant claims.

The Examiner’s rationale is flawed and is, at best, too general in nature to constitute a sufficient motivation for making the combination of references. At the outset, Applicants traverse the Examiner’s assertion that the applied references are from analogous arts. While Applicants do not necessarily deny that they are all related to the very broad area of storing and

managing information within a device, when making a determination regarding analogous arts, the test for analogous art outside an inventor's field of endeavor is whether the art pertains to the particular problem confronting the inventor. *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992). Applicants' invention is concerned with prioritizing transmission of messages from a telemetry device. *Caldwell, III et al.* is concerned with telemetry devices and, in particular, with transmitting prioritized command signals to satellites. *Sasaki et al.* is not concerned with telemetry devices or transmitting messages of any type but, rather, to control of cache memory and, in particular, to a technique for selecting data to purge in order to improve cache hit rates. *Bodin et al.* is concerned with the creation of a user reaction log for use in administering devices but is not concerned with prioritizing transmission of messages. Thus, it is clear that *Bodin et al.* and *Sasaki et al.* are outside of Applicants' field of endeavor. Therefore, the only way to save these references for proper use in an obviousness rejection is to show that they are somehow pertinent to the particular problem confronting Applicants.

The particular problem confronting Applicants was the need to prioritize information sent from vehicles in a fleet and asset management system to ensure timely acquisition of location information, while ensuring that urgent information is communicated from the vehicle prioritized over other information that is less urgent. Clearly, *Bodin et al.* has no pertinency to this problem. As for *Sasaki et al.*, while the reference mentions the assignment of priority to data items and is concerned with priority of such data items in terms of storage and purging such items from storage, it is not pertinent to the need to prioritize information sent from vehicles in a fleet and asset management system to ensure timely acquisition of location information. The artisan would not have looked to either *Bodin et al.* or *Sasaki et al.* seeking to solve Applicants' problem of prioritizing information sent from vehicles in a fleet and asset management system to ensure timely acquisition of location information. Accordingly, since at least *Bodin et al.* and

Sasaki et al. constitute non-analogous art, it was improper for the Examiner to combine the teachings of these references with *Caldwell, III et al.* in an attempt to reconstruct Applicants' claimed subject matter.

Moreover, the Examiner's rationale for making the combination is flawed. The Examiner contends that one would modify the system of *Caldwell, III et al.* with the teaching of *Sasaki et al.* in order to include the priority storing system of *Sasaki et al.* However, there is already a priority scheme in *Caldwell, III et al.*; thus, there is no advantage that would motivate the artisan to employ the priority storing system of *Sasaki et al.*

Further, there would have been no reason to further modify *Caldwell, III et al.* and *Sasaki et al.* with the data logs of *Bodin et al.* The Examiner says that it is "imperative to resolve problems for any set of telemetry states that should be automatically monitored for a device... with the information stored by priority efficiently...with a device log tracking the events occurring...." But this is merely an over-generalized statement, devoid of specifics, and does not describe what "problems" are to be resolved nor why it is "imperative" to solve them, or why such "problems" must be solved by storing information by priority and having a data log to track events. Such a lack of specifics would lead one to believe that impermissible hindsight guides the Examiner's perception of what would have been obvious.

The reference to *Ali et al.*, applied in connection with dependent claims 23 and 25, does not provide for the deficiencies of the primary references, as noted above.

Accordingly, no *prima facie* case of obviousness has been established and the Examiner is respectfully requested to withdraw the rejection of claims 1-25 under 35 U.S.C. § 103.

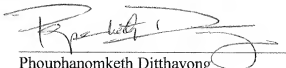
Therefore, the present application, as amended, overcomes the objections and rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the

undersigned attorney at (703) 519-9952 so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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Date


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